

**REMARKS/ARGUMENTS**

Reconsideration and allowance of the above-captioned patent application are respectfully requested. Claims 1, 2, 3, 5, 19, and 20 have been amended. Claims 1-20 are pending. Claims 21-23 are newly added.

***Specification***

The abstract of the disclosure is objected to because as being in excess of 150 words. The abstract of the disclosure has been amended to be within 150 words.

***Claim Objections***

Claims 1, 19, and 20 are objected to because of various informalities. Claims 1, 19, and 20 have been amended to correct such informalities.

***Claim Rejections - 35 U.S.C. §112***

In the Office Action, claims 5-16 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention. In particular, claim 5 recites a singular "a" and a plural "pads", while claims 8-16 recite the limitation "said . . . pads", which lacks antecedent basis. Claim 5 has been amended as recommended by the Examiner to correct these deficiencies.

***Claim Rejections - 35 U.S.C. §102***

In the Office Action, claims 1, 4, and 17 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 4,472,765 ("Hughes"). This rejection is respectfully traversed because the cited reference does not disclose or teach the combination of all of the claimed elements recited in the claims of the present application.

The present invention discloses systems and methods for connecting pairs of electrical connections on connector printed circuit boards mounted on opposite sides of a mid-plane printed circuit board at angles to each other. Via holes are positioned on the faces of the mid-plane board according to one of two schemes. In the first scheme, the via holes are

positioned along an axis perpendicular to an axis that bisects the angle of misalignment of the connector boards, and the via holes are equidistant from a point on the axis that bisects the angle of misalignment of the connector boards. In the second scheme, the via holes are positioned along an axis that bisects the angle of misalignment of the connector boards, and the via holes are equidistant from the electrical connections (See Application, Summary of the Invention).

Hughes discloses circuit-carrying cards disposed on edge between intervening mother-boards. Zero-insertion-force (ZIF) connectors upon the mother-boards accept the circuit-carrying cards, making selected contacts with the circuits thereof. Conductive pins of the ZIF connectors make common point electrical connections through the mother-boards. ZIF connectors of alternate tiers are orthogonally arranged (See Col. 1, lines 41-50).

Importantly, and in contrast to the claimed invention, Hughes does not teach, "a plurality of electrical paths through overlaying pairs of via holes *and through electrically conductive pads mounted on [the] first and second faces of [the] mid-plane printed circuit board*", as recited by amended claim 1. Applicant respectfully submits that dependent claims 4 and 17 are patentable at least by reason of their dependency on claim 1. Accordingly, withdrawal of the rejection of claims 1, 4, and 17 under 35 U.S.C. §102(b) is requested.

#### ***Claim Rejections - 35 U.S.C. §103***

In the Office Action, claim 18 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Hughes. Applicant respectfully submits that dependent claim 18 is patentable at least by reason of its dependency on claim 1. Accordingly, withdrawal of the rejection of claim 18 under 35 U.S.C. §103(a) is requested.


**DOCKET NO.:** FCI-2630/C2593  
**Application No.:** 10/051,703  
**Office Action Dated:** May 16, 2003

**PATENT**

**CONCLUSION**

In view of the above remarks, Applicant respectfully submits that the present application is in condition for allowance. Reconsideration of the application and an early Notice of Allowance are respectfully requested.

Date: August 6, 2003

  
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